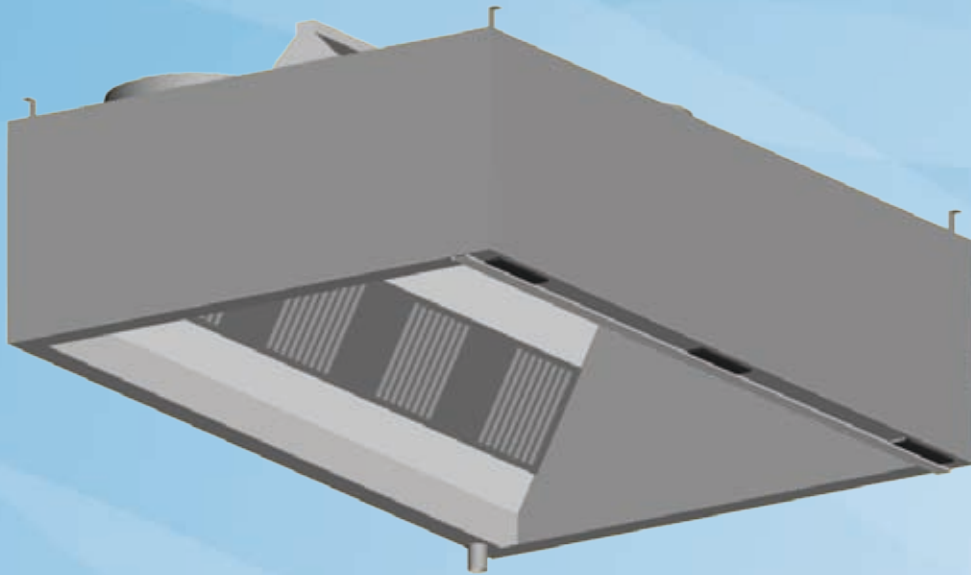


KVI

Capture Jet Canopy



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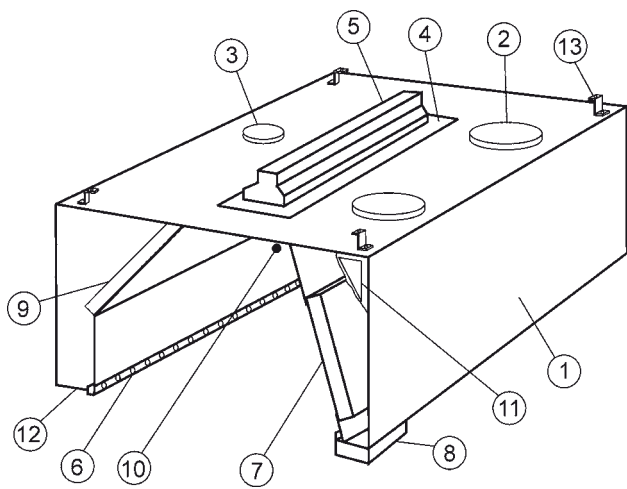
The KVI is a highly efficient kitchen ventilation canopy that removes contaminated air and excess heat emitted by cooking equipment, helping to provide a comfortable and hygienic environment.

The KVI canopy uses the advanced Halton Capture Jet™ technology to improve the capture and containment of the airflows generated by the cooking equipment. Overall exhaust airflow rates can be reduced by up to 30% from those of traditional kitchen hoods.

The Capture Jet™ technology is based on the high entrainment efficiency of a compact, high-velocity capture air jet. The capture air jets efficiently induce ambient air at the critical front face area of the canopy, minimising the spill-out of contaminated air and maintaining good air quality in the chef's work area.

- Improved indoor air quality with reduced energy use. Halton Capture Jet™ technology reduces the exhaust airflow rates required and improves the capture and containment efficiency of the canopy

- High-efficiency grease filtration using UL - and NSF - classified Halton KSA multi-cyclone filters - for removal of up to 95% of particles with a size of 8 microns or above
- Individually adjustable personal supply air nozzles located within the front supply plenum, compensating for the effects of the radiant heat emitted by the cooking equipment
- Optional general exhaust module (GE) that can be integrated on the side panel of the canopy in order to allow additional air exhaust from the kitchen area
- Standard delivery comprising lighting, balancing dampers for both supply and exhaust air and T.A.B.™ testing and balancing taps, which allow accurate and simple airflow rate adjustment and ductwork balancing, and effective commissioning
- Stainless steel (AISI 304), welded design



CODE	DESCRIPTION
1	Outer casing of stainless steel AISI 304
2	Exhaust air connection and damper
3	Supply air connection and damper
4	Installation hatch
5	Light fixture
6	Capture Jet™ nozzles
7	KSA grease filters
8	Grease collection tray or drain tap
9	Thermal insulation
10	Adjustment wires for capture air
11	General exhaust (GE) with damper (optional)
12	Personal supply air nozzle
13	Assembly brackets

Construction

The KVI canopy comprises a Capture Jet™ supply unit, a light fitting, adjustment dampers, airflow measurement taps and KSA grease filters. The exposed parts of the canopy are manufactured from polished stainless steel (AISI 304) and the unexposed parts from galvanised steel. The joints on the lower edge of the canopy are fully welded to avoid the harmful dripping of condensates

down onto the cooking equipment. A collection tray or a drain tap is fitted into the grease drain channel in order to enable removal of the grease and dirt extracted by the KSA multi-cyclone filters. The supply/capture air plenum is thermally insulated with non-fibre-releasing material in order to prevent vapours from condensing on the inner face of the canopy.

DIMENSIONS

KVI	mm
Length	1000....3000
Width	1100....1700 2000....3400 for Island model -Two sections 2000....2400 for Island model - One section
Height	555, 400

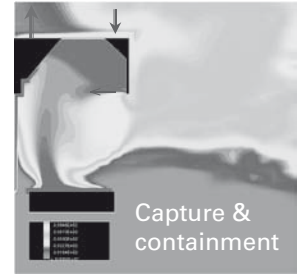
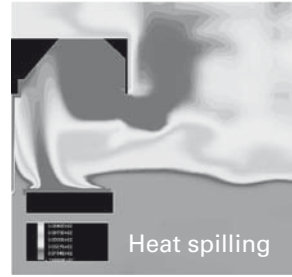
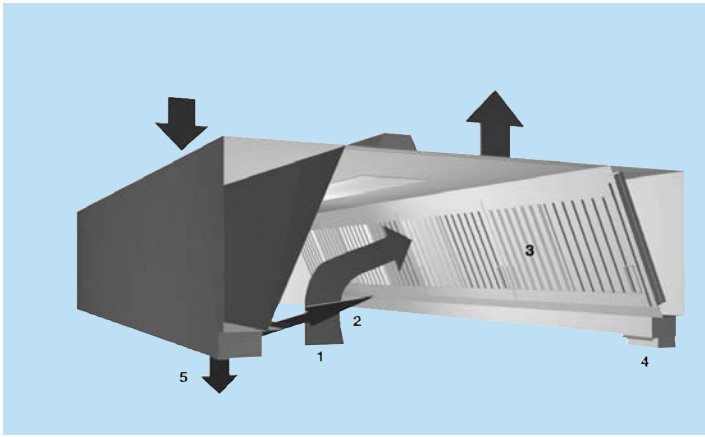
QUICK DATA

L	Recommended Exhaust air volumes- HF=330 (std KSA filter)		Recommended Capture Jets air volumes LpA < 45 dB(A)
	l/s	m³/h	
1500	235...447	846...1610	20 l/s / meter length or 72 m³/h / meter length LpA < 45 dB(A)
2000	310...580	1116...2088	
2500	420...770	1512...2772	
3000	460...860	1656...3096	

Exhaust air volumes indicated above are for a recommended pressure loss of KSA filter between 35...120 Pa - LpA < 56 dB(A) Halton HELP, computer design program for exhaust airflow and kitchen air conditioning load calculations.

* UL= Underwriters Laboratories (UL is an independent organization founded by the insurance industry in the U.S.A, giving approvals to safety tested products).

** NSF= National Sanitation Foundation (promoting hygiene and sanitation in the U.S.A)



Function

The kitchen canopy above cooking appliances contains the rising warm air and contaminants (1).

The capture air jets (2) direct the contaminated air toward the KSA grease filters (3), where grease particles and other impurities are separated from the exhaust air using the cyclone separation principle. The extracted grease and other air contaminants flow

into a drain channel and toward the collection tap/tray (4).

Individually adjustable supply air nozzles (5) (optional) can be used to increase air velocities in the work area near the cooking equipment, to compensate for the effects of the radiant heat emitted by the cooking equipment.

Accessories

- General exhaust (GE)
- Cover boards - for canopies below ceiling level
- Infill panels
- Blind filter in stainless steel for low exhaust flow rates and non-standard lengths
- Integrated light fitting - IP 65 (high temperatures)
- Surface-mounted light - IP 65 (max. ambient temperature: 35 °C)

- Non-standard spigot options: choice of size and position
- Canopy cut-outs to fit around columns
- Exhaust/supply plenum top panel in stainless steel
- Personal supply air nozzles
- Capture Jet™ fan to allow the use of room air for Capture Jets

DIMENSIONS (mm)

KVI - 1- Wall model	
L	1000.....3000
B	1000.....1700
H	555, 400
D1	160
D2	315
G	220
C	180

Note: The dimensions above are for modular sections only; larger canopies are assembled using a combination of separate modules, which makes transportation and site handling easier.

Light	
A	115
P	190
F	190
E	390 (B ≤ 1100), 490 (B > 1100)
I	680 (L < 1400, 2x18w), 1285 (L ≥ 1400, 2x36w)

LOCATION OF CONNECTIONS (mm)

For typical sizes

L	M	Exhaust		Supply
		2x315	1x315	1x160
		K	J	J
1500	375	750	L/2	750
2000	500	1000	L/2	1000
2500	500	1500	L/2	1250
3000	500	2000	L/2	1500

WEIGHTS (KG)

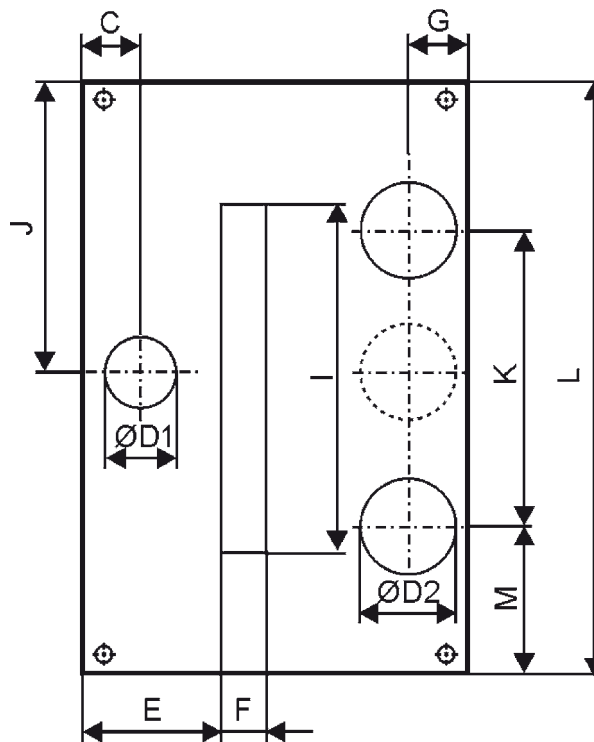
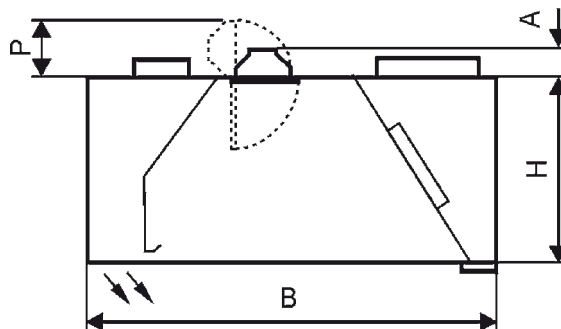
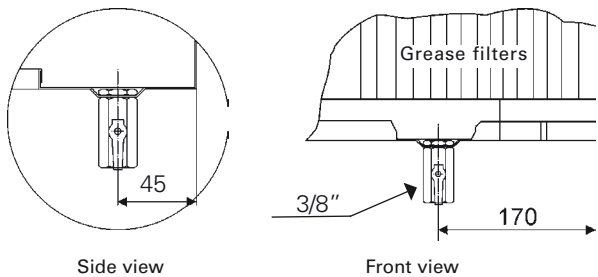
400 mm

L/B	1100	1300	1500	1700
1500	62	68	74	80
2000	78	85	90	96
2500	90	95	102	107
3000	105	110	117	123

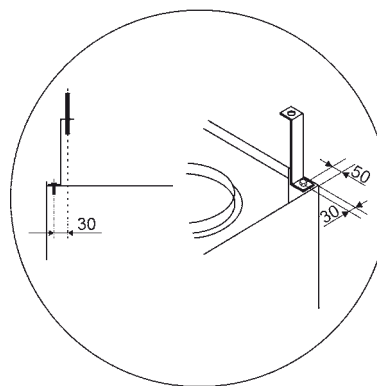
555 mm

L/B	1100	1300	1500	1700
1500	68	74	78	82
2000	86	92	98	104
2500	100	106	112	118
3000	115	122	128	134

Position of Drain tap, when fitted



Mounting bracket 150 mm high



DIMENSIONS (mm)

KVI - 2 - Island model - Two sections	
L	1000.....3000
B	2000.....3400
H	555, 400
D1	160
D2	315
G	220
C	180

Note: The dimensions above are for modular sections only; larger canopies are assembled using a combination of separate modules, which makes transportation and site handling easier.

Light	
A	115
P	190
F	190
E	390 (B ≤ 2200), 490 (B > 2200)
I	680 (L < 1400, 2x18w), 1285 (L ≥ 1400, 2x36w)

LOCATION OF CONNECTIONS (mm)

For typical sizes

L	M	Exhaust		Supply
		2x (2x315)	2x (1x315)	2x (1x160)
1500	375	750	L/2	750
2000	500	1000	L/2	1000
2500	500	1500	L/2	1250
3000	500	2000	L/2	1500

WEIGHTS (KG)

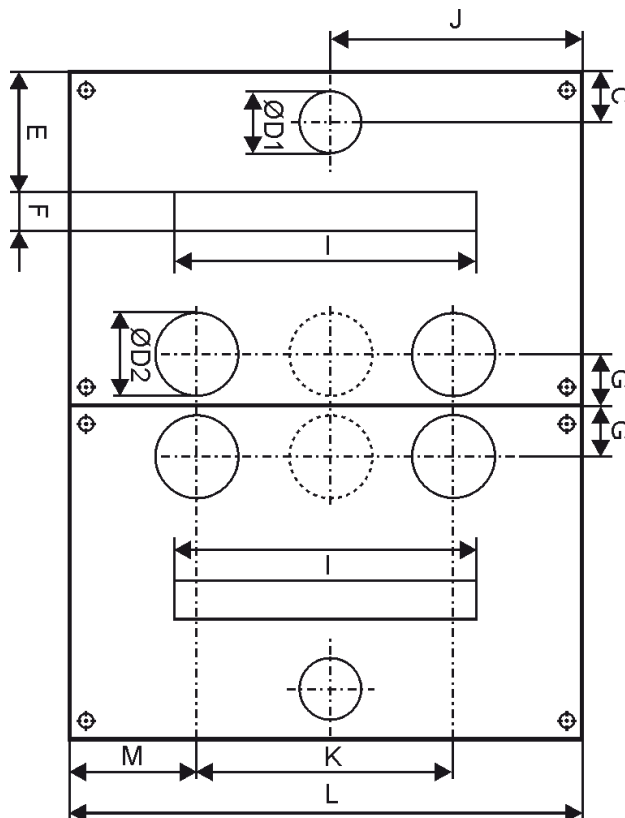
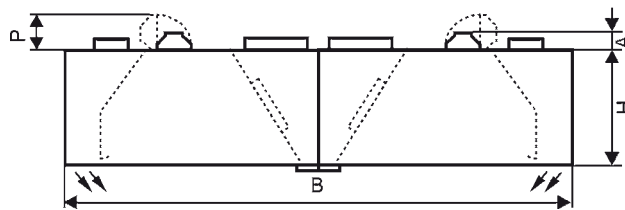
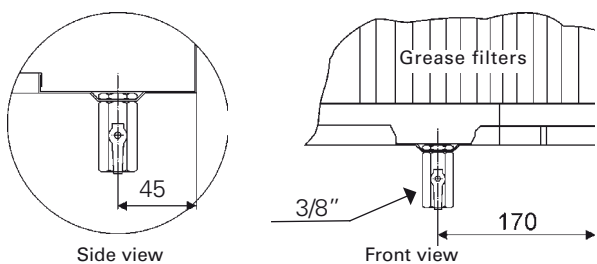
400 mm

L/B	2200	2600	3000	3400
1500	124	136	148	160
2000	156	170	170	192
2500	180	190	204	214
3000	210	220	234	246

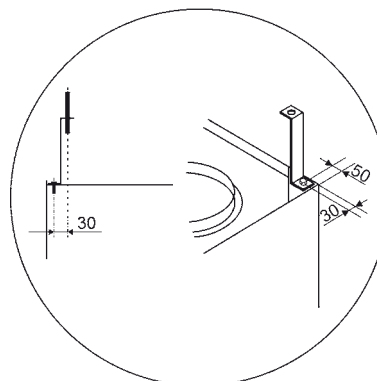
555 mm

L/B	2200	2600	3000	3400
1500	136	148	156	164
2000	172	184	196	208
2500	200	212	224	236
3000	232	244	256	268

Position of Drain tap, when fitted



Mounting bracket 150 mm high



DIMENSIONS (mm)

KVI - M - Island model - One section	
L	1000.....2500
B	2000.....2400
H	555, 400
D1	160
D2	315
G	440
C	180

Note: The dimensions above are for modular sections only; larger canopies are assembled using a combination of separate modules, which makes transportation and site handling easier.

Light	
A	115
P	190
F	190
E	390 (B ≤ 2200), 490 (B > 2200)
I	680 (L < 1400, 2x18w), 1285 (L ≥ 1400, 2x36w)

LOCATION OF CONNECTIONS (mm)

For typical sizes

L	M	Exhaust		Supply
		2x (2x315)	2x (1x315)	2x (1x160)
1500	375	750	L/2	750
2000	500	1000	L/2	1000
2500	500	1500	L/2	1250

WEIGHTS (KG)

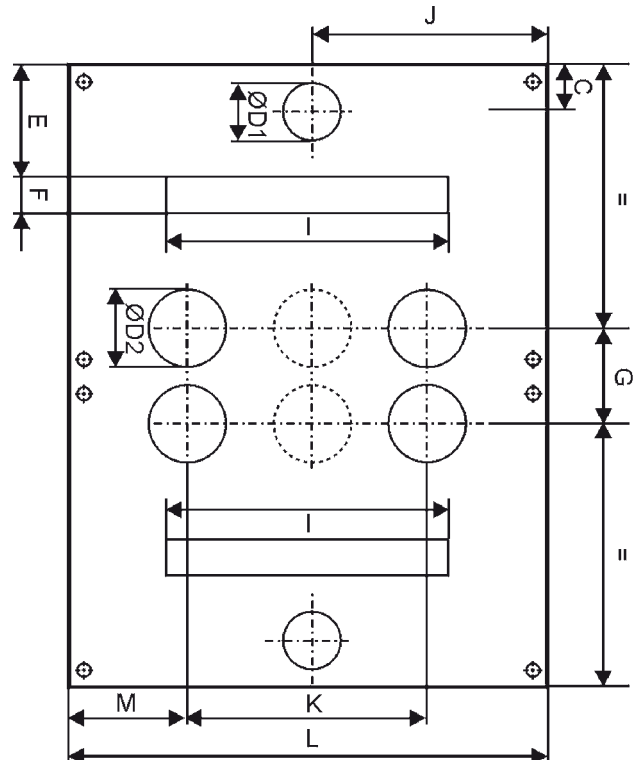
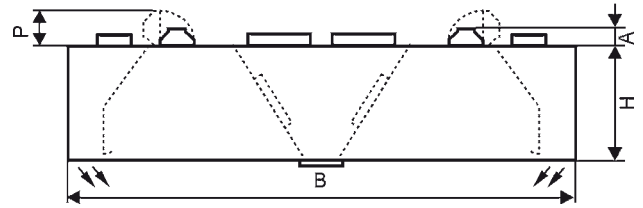
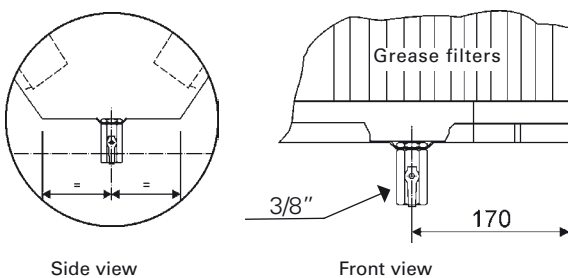
400 mm

L/B	2000	2200	2400
1500	104	114	124
2000	136	146	156
2500	160	170	180

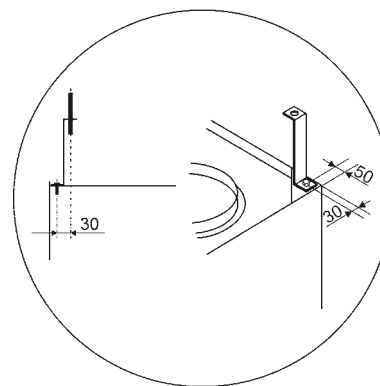
555 mm

L/B	2000	2200	2400
1500	116	126	136
2000	152	162	172
2500	180	190	200

Position of Drain tap, when fitted



Mounting bracket 150 mm high



Suggested specifications

General

Kitchen canopies shall be constructed from stainless steel AISI 304.

The kitchen canopies shall be supplied complete with outer casing / main body, supply air plenum, pressure measurement taps, supply and exhaust air spigot connections with airflow adjustment dampers, installation hatch, fluorescent lighting fixture, capture air jet and personal supply air nozzles, grease filters, perimeter grease drain channel, drain tap or collection tray, adjustment wires for supply air and assembly brackets.

Outer casing / main body

Outer casing panels shall be constructed of stainless steel sheet AISI 304 with a brushed satin finish. Each joint shall be spot-welded, riveted or machine-stitched. The canopy shall be provided with a full-perimeter condensate channel and crush-folded sloping edges, which are to be properly deburred.

The joints of the lower edge shall be fully welded, avoiding harmful dripping of condensates.

Supply plenum area

The supply air plenum shall be insulated with an M0 sealed glass wool slab of density 95 kg/m³. Access to the plenum shall be provided through removal of the stainless steel front panels of the main casing. The plenum's top panels (supply and exhaust) shall be constructed of galvanised steel.

Personal supply air nozzles (optional)

The supply air nozzles shall be constructed from ABS plastic and shall be adjustable to provide directional air supply.

Capture Jet™ system

The canopy shall be designed with capture air jet technology to reduce the exhaust airflow rate required and to improve the capture and containment efficiency of the canopy, while reducing energy consumption.

Pressure measurement taps

The pressure measurement taps shall be located on

the inside canopy to enable the measurement of supply and exhaust airflow rates.

Grease filters

The grease filters shall be constructed from stainless steel AISI 304 and shall be NSF and UL classified. The grease filters shall be supplied in modular size 500 x 330 x 50 mm and shall be removable via two folding handles.

The grease filters shall have a honeycomb design to enable high grease filter efficiency due to the vortex flow within the honeycomb.

Spigot connections

The spigot connections for supply and exhaust air shall be constructed from galvanised steel and shall be supplied with a gasket and airflow adjustment damper also manufactured from galvanised steel.

The exhaust damper shall be adjustable, and the supply air damper shall be adjustable via stranded wire cables with a high tensile strength.

Fluorescent light fitting

Each canopy shall have a fluorescent lighting fitting to provide an average illuminance of approximately 500 lux at the cooking appliances' work surface.

The lighting fixture shall be suitable for a single-phase 230-VAC power supply and shall be manufactured to be of protection class IP 65.

The ballast and capacitor shall be located within the lighting fixture housing.

The light fittings shall be hinged to allow access to the canopy roof.

A core electrical cable (3x1 mm²) connecting the light fitting to the junction box shall be provided.

Access hatch

Each canopy shall be provided with an access hatch of stainless steel AISI 304 with a plain milled finish. The access hatch shall comprise a tempered glass light diffuser. The heat tolerance of the glass shall be -40 to +300 °C. The hatch shall be hinged and held in position with screws.

